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EXAMINER

HUTTON JR, WILLIAM D

ART UNIT	PAPER NUMBER
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2179

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/497,800

**Applicant(s)**

FERRUCCI ET AL.

**Examiner**

Doug Hutton

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-37 is/are pending in the application.
- 4a) Of the above claim(s) 26-32, 36 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-25 and 33-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### ***Applicant's Response***

In Applicant's Response dated 7 January 2005, Applicant amended Claims 3, 7, 8, 11 and 12, and argued against all objections and rejections previously set forth in the Office Action dated 20 August 2004.

The rejections previously set forth under 35 U.S.C. 112, first paragraph are withdrawn. The rejections for Claims 1, 3-16, 18 and 33-35 previously set forth under 35 U.S.C. 102 are withdrawn.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the "**identifying**" of a link expression of the component variable (see Claim 1, Line 8); the "**determining whether the link expression can be identified with an element in a domain model of the document**" (see Claim 1, Lines 9-10); the "**best identity match**" that is performed by the reconciliation algorithm (see Claim 3, Line 3); the "**swapping**" that is performed by the reconciler (see Claim 22, Line 2); and "components" that are "**built from a same domain model**" (see Claim 25, Lines 1-2).

The disclosure is objected to because of the following informalities:

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- the phrase “mapped variable A from the document component’s (e.g., reference numeral 12) to variable 1 in the container assembly 11” on Page 13, Lines 12-14 should be amended to — mapped document variable A to container variable 1 — so that the sentence reads more clearly; and
- the phrase “mapped component variable B to container variable 3 (of the document component 12) in the container assembly 11 (e.g., containing document)” on Page 13, Lines 20-22 should be amended to — mapped component variable B to container variable 3 — so that the sentence reads more clearly.

Appropriate correction is required.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “displaying a component variable next to a representation of an element in a domain model of the document” (Claim 18, Lines 3-4) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

In *Applicant’s Response* dated 20 October 2004, Applicant argues that this limitation is shown in Figures 3-5 of the drawings. Yet, Applicant fails to specifically point out where the “***representation of an element in a domain model***” is shown in

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the drawings. The examiner sees a “component variable” in Figure 3 (in element 12, “Variable A”) of the drawings. However, the examiner cannot locate any **“representation of an element in a domain model”** that is shown in the drawings.

In response to this issue, Applicant should specifically point out the **“representation of an element in a domain model”** that is shown in the drawings. In other words, Applicant should specifically state the figure in which the “representation of an element in a domain model” is located and the exact location of the “representation of an element in a domain model” within that figure.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

- the term “variables” in Line 3 should be amended to — variable — because that is how the element is subsequently identified (see Claim 1, Lines 6 and 8);
- the phrase “for each of the component variables,” in Line 4 should be deleted, so that each step of the method corresponds; and
- the phrase “said container” in Lines 4-5 should be amended to — a container — because no “container” is previously mentioned in the claims.

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Claim 6 is objected to because of the following informalities:

- the phrase “when the link is made” in Line 2 should be deleted because the “link” being “made” is previously and definitely recited in the claims (see Claim 5, Line 3).

Claim 14 is objected to because of the following informalities:

- the phrase “automatic reconciliation” in Lines 1-2 should be amended to — automatic algorithm reconciliation — because that is how the element is previously identified (see Claim 3, Line 3).

Claim 17 is objected to because of the following informalities:

- the phrase “said container” in Lines 4-5 should be amended to — a container — because no “container” is previously mentioned in the claims.

Claim 19 is objected to because of the following informalities:

- the phrase “container, with” in Line 5 should be amended to — container to — so that the claim reads more easily. The comma is unnecessary and leads to confusion.

Claim 20 is objected to because of the following informalities:

- the comma in Line 2 should be deleted so that the claim reads more easily.

Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 24 is dependent upon Claim 19, which recites “a reconciler that maps container variables [to] component variables” (see Claim 19, Lines 5-6). Thus, ***under all possible conditions***, the reconciler maps container variables with component variables. The term “**map**” is a synonym for the term “**reconcile**.” Both of these terms simply mean that each particular component variable is associated with its corresponding container variable.

Claim 24 states that, under certain conditions (“when said component variables in said document include a value and said reconciler is in an on-state” – Lines 1-2), the reconciler “reconciles said component variables . . . with said container variables” (see Lines 2-4). As previously stated, Claim 19 already recites that the reconciler maps container variables to component variables under all possible conditions. Thus, Claim 24 fails to further limit Claim 19.

If Applicant believes that “mapping” is different from “reconciling,” then Applicant should clearly detail the differences in Applicant's Response to this Office Action.

Claim 25 is objected to because of the following informalities:

- the phrase “and wherein said container variables in said container are reconciled with said component variables in said components” in Lines 2-3 fails to further

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limit the invention because Claim 19 already recites that the reconciler "maps" container variables with component variables.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 8-13 and 16-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

*Claims 1, 8-13 and 16-18:*

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Additionally, the claimed invention is so abstract and sweeping that it covers the method as practiced by a human operator assisted only by pencil and paper. The claims do not include a particular machine or apparatus, and no machine-implemented steps are recited. Every step is capable of performance by the human mind. A method of this sort, traditionally called a "mental process," is not patentable subject matter.



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“Phenomena of nature, though just discovered, “*mental processes*,” abstract intellectual concepts are not patentable as they are the basic tools of scientific and technological work.” (emphasis added) *Gottschalk v. Benson*, 75 U.S.P.Q. 673, 675 (U.S.S.C. 1972). See also, *In re Prater and Wei*, 159 U.S.P.Q. 583 (1968), *rehearing* U.S.P.Q. 571 (1969).

Applicant can obviate these rejections by amending the phrase “A method” in Line 1 of Claims 1, 17 and 18 to — A computer-implemented method —.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-18, 22, 25 and 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

***Claims 1, 17, 33 and 34:***

Claim 1 recites “if an ***identification*** is determined” in Line 6. This limitation is indefinite because it is unclear whether the limitation refers to the “identification” of the component variables that is recited in Line 3. In the examiner’s opinion, it does not. Rather, this limitation appears to refer to the determination of whether there is a

corresponding container variable that refers to the same domain concept as the component variable that is being analyzed (see Lines 4-5).

Applicant may obviate this rejection by amending the first three steps of the Claim 1 (Lines 3-7) to the following:

- identifying component variables;
- for each of the identified component variables, determining if there is a corresponding container variable that refers to a same domain concept;
- upon locating a corresponding container variable that refers to a same domain concept as the identified component variable, associating said identified component variable with said corresponding container variable.

For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

Claim 17 has the same problems. Thus, every problem and proposed solution previously discussed for Claim 1 also applies to Claim 17.

Claim 1 recites “**identifying** a link expression of said component variable; and determining whether the link expression **can be identified with** an element in a domain model of the document” in Lines 8-10. These limitations are indefinite because it is unclear what is meant by the term “**identifying**” in Line 8 and the phrase “determining whether the link expression **can be identified with** an element in a domain model of

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the document” In Lines 9-10. Although both phrase use a form of the term “identify,” the meanings of the two terms appear to be different. Also, the phrase in Lines 9-10 fails to further limit the claim as explained in the following discussion. Accordingly, the intended scope of Claim 1 cannot be determined.

In the Applicant’s Response to the Office Action dated 20 August 2004, Applicant states that the “link expression” defines a path *in the domain model*, with the path ultimately landing *at a domain model element* (see *Applicant’s Response*, dated 20 October 2004 – Page 19, fourth paragraph). Using this interpretation of the claim language provided by Applicant, the “link expression” is already “identified with” a domain model element. Thus, there would be no need to **determine whether** the link expression **can be** identified with a domain model element, because the link expression already **is** identified with a domain model element.

The language used in these limitations (Claim 1, Lines 8-10) confuses the reader and obscures the essence of Applicant’s invention, which is automatically mapping component variables to corresponding container variables and allowing a user to either accept or override the mappings.

Applicant must amend these limitations to particularly point out and distinctly claim the invention. One amendment may be: amending the limitations recited in Lines 8-10 to — allowing a user to either accept or override the association between the identified component variable and the corresponding container variable —. For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

In the examiner's opinion, the first three steps of Claim 1 attempt to recite the automatic reconciliation of the identified component variables with corresponding container variables, if the particular identified component variable has a corresponding container variable that refers to the same domain concept as the particular identified component variable. Also, in the examiner's opinion, the fourth and fifth steps of Claim 1 attempt to recite that the user can interactively either: 1) **accept** the automatic reconciliation of the identified component variables and their corresponding container variables that is performed by the computer; or 2) **override** the automatic reconciliation and interactively map each identified component variable to a user-selected domain model element (see Claims 8, 11 and 15 for support of the examiner's interpretation of Claim 1).

Claims 33 and 34 have the same problems as Claim 1. Thus, every problem and proposed solution discussed for Claim 1 also apply to Claims 33 and 34.

To clearly set forth the examiner's interpretation of Claim 1 for purposes of examination, the examiner's complete suggested amendment for Claim 1 follows:

*Claim 1:*

A computerized method of reconciling component variables with container variables in a document, comprising:

- identifying component variables;

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- for each of the identified component variables, determining if there is a corresponding container variable that refers to a same domain concept;
- upon locating a corresponding container variable that refers to a same domain concept as the identified component variable, associating said identified component variable with said corresponding container variable; and
- allowing a user to either accept or override the association between the identified component variable and the corresponding container variable.

*Claims 3, 5-12 and 15:*

As stated in the above discussion, in the examiner's opinion, the first three steps of Claim 1 attempt to recite the automatic reconciliation performed by the computer, and the fourth and fifth steps of Claim 1 attempt to recite that the user can interactively either accept or override the automatic reconciliation performed by the computer.

Thus, in the examiner's opinion, the "automatic reconciliation algorithm" recited in Line 3 of Claim 3 is performed in Steps 1-3 of Claim 1. Accordingly, the "determining" recited in Line 1 of Claim 3 should refer to the "determining if there is a corresponding container variable in said container that refers to a same domain concept" that is recited in Lines 4-5 of Claim 1.

Applicant should amend Claim 3 to particularly point out and distinctly claim the invention. Applicant may obviate this rejection by amending Claim 3 to: "The method of Claim 1, wherein said associating uses an automatic reconciliation algorithm to find a

best identity match.” For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

Claims 5-7 depend from Claim 3. Using the examiner’s interpretation of Claims 1 and 3, Claims 5-7 do not correspond to the examiner’s suggest amendments for Claims 1 and 3. That is, under the examiner’s interpretation of the claims, language referring to the “domain model” and the “link expression” should be amended.

Thus, in order to correspond with the examiner’s suggested amendments for Claims 1 and 3, the following amendments are suggested:

- Claim 5 should be amended to — The method according to Claim 3, wherein, with said best identity match found, the identified component variable in the component is linked with said corresponding container variable in the container. —;
- Claim 6 should be amended to — The method according to Claim 5, wherein the component variable in the component assumes a value of the container variable in the containing document and the component variable is positioned in the document with the new value. —; and
- Claim 7 should be amended to — The method according to Claim 3, wherein said best identity match matches the component variable of the component to the container variables in the containers to find the best match. —.

For purposes of examination, the examiner will assume that Applicant will adopt the suggestions.

Claims 8-12 and 15 depend from Claim 1. As stated in the above discussion, in the examiner's opinion, the fourth and fifth steps of Claim 1 attempt to recite that the user can interactively either accept or override the automatic reconciliation performed by the computer.

Thus, in order to correspond with the examiner's suggested amendment for Claim 1, the following amendments are suggested:

- Claim 8 should be amended to — The method according to Claim 1, wherein said association between the identified component variable and the corresponding container variable is interactively overridden by the user. —;
- Claim 9 should be amended to — The method according to Claim 8, wherein said component variable is interactively displayed adjacent to the corresponding container variable. —;
- Claim 10 should be amended to — The method according to Claim 8, wherein a plurality of component variables are interactively displayed adjacent to a plurality of corresponding container variables. —;
- Claim 11 should be amended to — The method according to Claim 1, wherein said allowing a user to override the association comprises allowing the user to actuate a component variable and interactively match the component variable to a container variable. —;
- Claim 12 should be amended to — The method according to Claim 11, wherein said allowing a user to override the association is performed by said user for each component variable. —; and

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- Claim 15 should be amended to — The method according to Claim 1, wherein a graphical user interface allows the user to override the association between the identified component variable and the corresponding container variable. —.

For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

*Claim 13:*

The claim recites “whether values to be assigned to *the variables*” in Line 2. This limitation is indefinite because it is unclear whether it refers to the “container” variables, the “component” variables or both.

The claim also recites “whether values to be assigned to the variables, *once matched*” in Line 2. This limitation is indefinite because it is unclear what is “*matched*.” The only “matching” previously recited in the claims is recited in Claim 11 – “interactively *matching* the component variable to an element of the domain model” (see Lines 3-4). Claim 1 recites that a “component variable” and a “container variable” are “associated,” if the component variable and the container variable refer to the same domain concept (see Lines 4-7).

Applicant should amend Claim 13 to particularly point out and distinctly claim the invention. Applicant may obviate this rejection by amending the claim to: “The method according to Claim 12, wherein said user interactively determines whether a value to be assigned to each said component variable should be the value already in the container



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that is to hold the component, or, when said component has a value, the value that is in the component before the component is placed into the container.” For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

*Claim 14:*

The claim recites “a value to be assigned to *the variable*” in Line 2. This limitation is indefinite because it is unclear whether it refers to a “container” variable or a “component” variable.

The claim also recites “a value to be assigned to the variable, *once matched*, is the value in the containing document” in Lines 2-3. This limitation is indefinite because it is unclear what is “*matched*.” The only “matching” previously recited in the claims is recited in Claim 3 – “a best identity match” (see Line 3) that “matches” a “component variable” with a “container variable,” if the component variable and the container variable refer to the same domain concept (see Claim 1, Lines 4-7).

Applicant should amend Claim 14 to particularly point out and distinctly claim the invention. Applicant may obviate this rejection by amending the claim to: “The method according to Claim 3, wherein said automatic reconciliation algorithm automatically determines that a value to be assigned to the component variable is the value already in the container that is to hold said component.” For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

*Claim 17:*

The claim recites “if an **identification** is determined” in Line 6. This limitation is indefinite because it is unclear whether the limitation refers to the “identification” of the component variables that is recited in Line 3. In the examiner’s opinion, it does not. Rather, this limitation appears to refer to the determination of whether there is a corresponding container variable that refers to the same domain concept as the component variable that is being analyzed (see Lines 3-4).

Applicant may obviate this rejection by amending the three steps of the claim (Lines 3-7) to the following:

- identifying component variables;
- for each of the identified component variables, determining if there is a corresponding container variable that refers to a same domain concept;
- if there is a corresponding container variable that refers to the same domain concept as the identified component variable, associating said identified component variable with said corresponding container variable.

For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

*Claims 18 and 35:*

Claim 18 recites “**matching** said element of said domain model interactively by a user” in Line 7. This limitation is indefinite because it does not specify to what the

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“element of said domain model” is “matched.” Also, the limitation in Lines 3-4 corresponds to Claim 9, and the limitation in Lines 5-6 corresponds to the final step recited in Claim 1 (Lines 9-10). Thus, the limitations in Claim 18, Lines 3-6 have the same problems previously indicated in the above discussions.

Applicant may obviate this rejection by amending Claim 18 to the following:

- A method of automatically reconciling component variables with container variables in a document, comprising:
  - displaying a component variable adjacent to a corresponding container variable;
  - allowing a user to interactively either accept or override an association between the component variable and the corresponding container variable.

For purposes of examination, the examiner will assume that Applicant will adopt the suggestion.

Claim 35 has the same problem. Thus, the problem and proposed solution discussed for Claim 18 also apply to Claim 35.

*Claim 22:*

The claim recites “wherein if the component variable in the component includes a value, ***then no swapping is performed by said reconciler***” in Lines 1-2. This

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limitation is indefinite because is unclear what is meant by this limitation (i.e., the intended scope of the invention as recited in the claim).

Firstly, neither the Specification nor the previous claims mention anything about a “swapping” being performed by the reconciler. Secondly, it is unclear what is “not swapped” by the reconciler. That is, it is unclear what would be “swapped” if the component variable **does not** include a value.

Applicant may obviate this rejection by deleting the claim. For purposes of examination, the examiner will assume that the “system” of Claim 19 performs no “swapping” under any conditions.

*Claim 25:*

The claim recites “wherein **said components are built from a same domain model**” in Lines 1-2. This limitation is indefinite because is unclear what is meant by this limitation (i.e., the intended scope of the invention as recited in the claim).

Firstly, the Specification mentions nothing about “components” being “built.” Rather, the Specification discloses that “component variables” are “associated with container variables” when a component variable and a corresponding container variable refer to the same “domain concept.”

Secondly, assuming the “components” are “built,” then the components are “built from a same domain model” as what? In other words, this limitation may be interpreted to mean that two elements of the invention are “built” from the “same domain model.”

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One of those elements are the "components." What is the other element? The Specification says nothing about another element of the invention being built "built from a same domain model" as the "components."

Finally, Claim 25 refers to "said components" (see Line 1) when only one component has been previously mentioned in Claim 19 (see Line 4).

Applicant may obviate this rejection by deleting the claim. For purposes of examination, the examiner will assume that the "system" of Claim 19 includes multiple "components" and that the "multiple components" belong to a "common domain model."

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-8, 14-17, 19-25, 33 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor, U.S. Patent No. 6,209,004.

*Claim 1:*

Taylor discloses a method of reconciling component variables with container variables in a document (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column 3, Lines 25-33 – Taylor discloses this limitation in that the document creation system assembles documents by combining data in a template with data in a relational database; the template comprises “variables” in that it includes fields; the database data comprises “variables” in that each database datum is a value that may be inserted into a corresponding template field), comprising:

- identifying component variables (see Column 3, Lines 25-33 – Taylor discloses this limitation in that the document creation system assembles documents by combining data in a template with data in a relational database; the database data is *inherently* “identified” in that it is retrieved from the database and inserted into a corresponding template field);
- for each of the identified component variables, determining if there is a corresponding container variable that refers to a same domain concept (see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system includes document dependencies that determine which database data and templates are to be linked);
- upon locating a corresponding container variable that refers to a same domain concept as the identified component variable, associating said identified component variable with said corresponding container variable (see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation

system uses the document dependencies to link database data and corresponding templates); and

- allowing a user to either accept or override the association between the identified component variable and the corresponding container variable (see Figure 2; see Column 3, Line 54 through Column 4, Line 49 – Taylor discloses this limitation in that the document creation system allows the user to edit the document that is created by combining the database data with the corresponding templates).

*Claim 3:*

Taylor discloses the method according to Claim 1, wherein said associating uses an automatic reconciliation algorithm to find a best identity match (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system includes document dependencies that determine which database data and templates are to be linked; the document dependencies comprise a “best identity match” in that they define rules that link comparable database data with corresponding templates).

*Claim 4:*

Taylor discloses the method according to Claim 3, wherein said best identity match comprises a direct match (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system includes document dependencies that determine

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which database data and templates are to be linked; the document dependencies comprise a "direct match" in that they define rules that link comparable database data with corresponding templates).

*Claim 5:*

Taylor discloses the method according to Claim 3, wherein, with said best identity match found, the identified component variable in the component is linked with said corresponding container variable in the container (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system includes document dependencies that determine which database data and templates are to be linked; as indicated in the above rejection for Claim 3, the document dependencies finds the "best identity match" and links comparable database data with corresponding templates).

*Claim 6:*

Taylor discloses the method according to Claim 5, wherein the component variable in the component assumes a value of the container variable in the containing document and the component variable is positioned in the document with the new value (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 4, Lines 38-49 – Taylor discloses this limitation in that the document creation system includes document dependencies that automatically update and reconciles the database data and templates that are to be linked).



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*Claim 7:*

Taylor discloses the method according to Claim 3, wherein said best identity match matches the component variable of the component to the container variables in the containers to find the best match (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system includes document dependencies that determine which database data and templates are to be linked; the document dependencies “find the best match” in that they define rules that link comparable database data with corresponding templates; thus, the database data is linked to the template that ‘best matches’ the database data).

*Claim 8:*

Taylor discloses the method according to Claim 1, wherein said association between the identified component variable and the corresponding container variable is interactively overridden by the user (Taylor discloses this limitation in that the document creation system allows the user to edit the document that is created by combining the database data with the corresponding templates, as indicated in the above rejection for Claim 1).

*Claim 14:*

Taylor discloses the method according to Claim 3, wherein said automatic reconciliation algorithm automatically determines that a value to be assigned to the

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component variable is the value already in the container that is to hold said component (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 4, Lines 38-49 – Taylor discloses this limitation in that the document creation system includes document dependencies that automatically update and reconcile the database data and templates that are to be linked; the reconciliation of the database data and corresponding templates will use either the value of the database datum or the corresponding template).

*Claim 15:*

Taylor discloses the method according to Claim 1, wherein a graphical user interface allows the user to override the association between the identified component variable and the corresponding container variable (Taylor discloses this limitation in that the document creation system allows the user to edit the document that is created by combining the database data with the corresponding templates, as indicated in the above rejection for Claim 1).

*Claim 16:*

Taylor discloses the method according to Claim 1, wherein the user interactively selects a container value (Taylor discloses this limitation in that the document creation system allows the user to edit the document that is created by combining the database data with the corresponding templates, as indicated in the above rejection for Claim 1; by editing the document, the user may “interactively select” the value of the template).

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*Claim 17:*

Taylor discloses a method of automatically reconciling component variables with container variables in a document (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column 3, Lines 25-33; see Column 3, Lines 54-65 – as indicated in the above rejection for Claim 1, Taylor discloses this limitation; also, Taylor discloses “automatically” reconciling in that the document creation system uses the document dependencies to link database data and corresponding templates), comprising:

- identifying component variables;
- for each of the identified component variables, determining if there is a corresponding container variable that refers to a same domain concept; and
- upon locating a corresponding container variable that refers to a same domain concept as the identified component variable, associating said identified component variable with said corresponding container variable (as indicated in the above rejection for Claim 1, Taylor discloses these limitations).

*Claim 19:*

Taylor discloses a system for reconciling component variables with container variables in a document relative to a domain model (as indicated in the above rejection for Claim 1, Taylor discloses this limitation), comprising:

- a container including a plurality of container variables (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column 3, Lines 25-33 – Taylor

discloses this limitation in that the document creation system comprises templates that include plurality of fields);

- a component including a plurality of component variables in said document (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column 3, Lines 25-33 – Taylor discloses this limitation in that the document creation system comprises database data that include values that may be inserted into corresponding template fields); and
- a reconciler that maps container variables in said container with component variables in said component (see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system uses document dependencies to link database data and corresponding templates).

*Claim 20:*

Taylor discloses the system according to Claim 19, wherein said reconciler is manually controlled by a user to perform a mapping (see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system uses document dependencies to link database data and corresponding templates; the document dependencies are “manually controlled by a user” in that a computer programmer writes the code to perform the mapping).

*Claim 21:*

Taylor discloses the system according to Claim 19, further comprising:

- a controller for automatically controlling said reconciler to perform said mapping (see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system uses document dependencies to automatically link database data and corresponding templates).

*Claim 22:*

Taylor discloses the system according to Claim 19, wherein if the component variable in the component includes a value, then no swapping is performed by said reconciler (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column see Column 4, Lines 38-49 – Taylor discloses this limitation in that the document creation system includes document dependencies that automatically update and reconcile the database data and templates that are to be linked; the reconciliation of the database data and corresponding templates will use either the value of the database datum or the corresponding template).

*Claim 23:*

Taylor discloses the system according to Claim 19, wherein said component includes a plurality of alternative choices for being mapped by said reconciler (see Figure 2; see Column 2, Lines 1-12; see Column 2, Lines 21-29; see Column 3, Lines 25-33 – Taylor discloses this limitation in that the document creation system comprises database data that include values that may be inserted into corresponding template fields).

*Claim 24:*

Taylor discloses the system according to Claim 19, wherein when said component variables in said document include a value and said reconciler is in an on-state, said reconciler reconciles said component variables in said document with said container variables in said container (see Column 3, Lines 54-65 – Taylor discloses this limitation in that the document creation system uses document dependencies to link database data and corresponding templates; the document dependencies will link database data and corresponding templates whenever the database data includes a value and the document dependencies are in an on-state).

*Claim 25:*

Taylor discloses the system according to Claim 19, wherein said components belong to a common domain model (Taylor discloses this limitation in that the document creation system comprises database data; the database data “belongs to a common domain model” in that at least a portion of the database data is used to construct a specific type of document).

*Claims 33 and 34:*

These claims merely recite a system (Claim 34) and software (Claim 35) that perform the method recited in Claim 1. Taylor discloses a computer system and computer software that performs the method of Claim 1. Thus, Taylor discloses every limitation of Claims 33 and 34, as indicated in the above rejection for Claim 1.

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Using the claim language currently recited, Claims 17 and 19-25 remain rejected under 35 U.S.C. 102(b) as being anticipated by Boyce et al., Special Edition Using Microsoft Office 97, Pages 185-199 and 1017-1031, (Que Publishing, ©1997).

*Claim 17:*

Boyce discloses a method of automatically reconciling component variables with container variables in a document (see Boyce, Pages 188-196 and 1020-1023 – Boyce discloses this limitation in that data from an Access database table can be merged into a Word document; the reconciliation is “automatic” in that the data from the Access database table are merged into the corresponding merge fields of the word document once the merge process begins; that is, the user is not required to interactively merge the data from the Access database table into the corresponding merge fields of the word document), comprising:

- identifying component variables in a component (Boyce reads on this limitation in that Word allows other data to be merged into a Word document - the “container”; when merging “components” from an Access database table into a Word document, Word analyzes the fields for each record in the Access database table - each field is a “component variable”);
- for each of the component variables, determining if there is a container variable in said container that refers to a same domain concept (Boyce reads on this limitation in that Word, during merging, analyzes the fields of each record in the Access database to see if there is a corresponding “merge field” in the Word document);

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- if an identification is determined, associating said component variable in the component with said container variable in the container (Boyce reads on this limitation in that Word, upon “determining an identification,” matches each “identified” field in the Access database table with the corresponding “merge field” in the Word document).

*Claim 19:*

Boyce discloses a system for reconciling component variables with container variables in a document relative to a domain model (see Boyce, Pages 188-196 and 1020-1023), comprising:

- a container including a plurality of container variables (the Word “container” document includes a plurality of “merge fields”);
- a component including a plurality of component variables in said document (each record in the Access database has a plurality of fields); and
- a reconciler that maps container variables in said container, with component variables in said component (the referenced invention includes a “reconciler” for mapping “container variables” with “component variables” in that each “merge field” in the Word document is mapped to corresponding fields of each record in the Access database).



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*Claim 20:*

Boyce discloses the system of Claim 19, wherein said reconciler is manually controlled by a user, to perform a mapping (as indicated in the rejections for Claims 11, 13 and 15, the reference invention discloses a “user” that “manually controls” a “reconciler” to perform “mapping”).

*Claim 21:*

Boyce discloses the system of Claim 19, further comprising:

- a controller for automatically controlling said reconciler to perform said mapping (when Word performs the merge function, it “automatically controls” the reconciler).

*Claim 22:*

Boyce discloses the system of Claim 19, wherein if the variable in the component includes a value, then no swapping is performed by said reconciler.

*Claim 23:*

Boyce discloses the system of Claim 19, wherein said component includes a plurality of alternative choices for being mapped by said reconciler (each record in the Access has a “plurality” of fields for being mapped by the “reconciler”).

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*Claim 24:*

Boyce discloses the system of Claim 19, wherein when said component variables in said document include a value and said reconciler is in an on-state, said reconciler reconciles said component variables in said document with said container variables in said container (as indicated in the rejection for Claim 20, the reference invention discloses a "reconciler" that reconciles "variables").

*Claim 25:*

Boyce discloses the system of Claim 19, wherein said components are built from a same domain model and wherein said container variables in said container are reconciled with said component variables in said components (as indicated in the rejection for Claim 20, the reference invention discloses a "reconciler" that reconciles "variables").

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-13, 18 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor, in view of Fong et al., U.S. Patent No. 6,279,015.

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*Claim 9:*

Taylor discloses every limitation of Claim 8, as indicated in the above rejection for Claim 8.

Taylor fails to expressly disclose a component variable that is interactively displayed adjacent to the corresponding container variable.

Fong teaches a method and apparatus for providing a graphical user interface for creating and editing a mapping that is used to assemble a document (see Figures 12A and 12B; see Title of the Invention; see Abstract – Fong teaches this limitation, as clearly indicated in the cited figures and text), comprising:

- interactively displaying a component variable adjacent to a corresponding container variable (see Figures 12A and 12B; see Column 16, Line 34 through Column 17, Line 32 – Fong teaches this limitation in that the map editor tool comprises a graphical user interface that displays the SGML tags and the corresponding HTML tags),

for the purpose of allowing the user to interactively define the mapping (see Column 1, Lines 32-35).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Taylor, to include:

- interactively displaying a component variable adjacent to a corresponding container variable,

for the purpose of allowing the user to interactively define the mapping, as taught by Fong.

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*Claim 10:*

Taylor fails to expressly disclose a plurality of component variables that are interactively displayed adjacent to a plurality of corresponding container variables.

Fong teaches a method and apparatus for providing a graphical user interface for creating and editing a mapping that is used to assemble a document (see Figures 12A and 12B; see Title of the Invention; see Abstract – Fong teaches this limitation, as clearly indicated in the cited figures and text), comprising:

- interactively displaying a plurality of component variables adjacent to a plurality of corresponding container variables (see Figures 12A and 12B; see Column 16, Line 34 through Column 17, Line 32 – Fong teaches this limitation in that the map editor tool comprises a graphical user interface that displays the SGML tags and the corresponding HTML tags),

for the purpose of allowing the user to interactively define the mapping (see Column 1, Lines 32-35).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Taylor, to include:

- interactively displaying a plurality of component variables adjacent to a plurality of corresponding container variables,

for the purpose of allowing the user to interactively define the mapping, as taught by Fong.

*Claim 11:*

Taylor fails to expressly disclose allowing the user to actuate a component variable and interactively match the component variable to a container variable.

Fong teaches a method and apparatus for providing a graphical user interface for creating and editing a mapping that is used to assemble a document (see Figures 12A and 12B; see Title of the Invention; see Abstract – Fong teaches this limitation, as clearly indicated in the cited figures and text), comprising:

- allowing the user to actuate a component variable and interactively match the component variable to a container variable (see Figures 12A and 12B; see Column 16, Line 34 through Column 17, Line 32 – Fong teaches this limitation in that the map editor tool comprises a graphical user interface that displays the SGML tags and the corresponding HTML tags),

for the purpose of allowing the user to interactively define the mapping (see Column 1, Lines 32-35).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Taylor, to include:

- allowing the user to actuate a component variable and interactively match the component variable to a container variable,

for the purpose of allowing the user to interactively define the mapping, as taught by Fong.

*Claim 12:*

Taylor discloses allowing the user to override the association for each component variable (Taylor discloses this limitation in that the document creation system allows the user to edit the document that is created by combining the database data with the corresponding templates, as indicated in the above rejection for Claim 1; the user may edit any part of the document, including all of the database data that is inserted into the document).

*Claim 13:*

Taylor discloses the user interactively determining whether a value to be assigned to each said component variable should be the value already in the container that is to hold the component, or, when said component has a value, the value that is in the component before the component is placed into the container (Taylor discloses this limitation in that the document creation system allows the user to edit the document that is created by combining the database data with the corresponding templates; thus, the user can assign either the value of the template or the value of the corresponding database data).

*Claim 18:*

Taylor discloses a method of automatically reconciling component variables with container variables in a document (as indicated in the above rejection for Claim 17, Taylor discloses this limitation), comprising:

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- allowing a user to either accept or override the association between the identified component variable and the corresponding container variable (as indicated in the above rejection for Claim 1, Taylor discloses this limitation).

Taylor fails to expressly disclose:

- displaying a component variable adjacent to a corresponding container variable.

Fong teaches a method and apparatus for providing a graphical user interface for creating and editing a mapping that is used to assemble a document (see Figures 12A and 12B; see Title of the Invention; see Abstract – Fong teaches this limitation, as clearly indicated in the cited figures and text), comprising:

- displaying a component variable adjacent to a corresponding container variable (see Figures 12A and 12B; see Column 16, Line 34 through Column 17, Line 32 – Fong teaches this limitation in that the map editor tool comprises a graphical user interface that displays the SGML tags and the corresponding HTML tags), for the purpose of allowing the user to interactively define the mapping (see Column 1, Lines 32-35).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Taylor, to include:

- displaying a component variable adjacent to a corresponding container variable, for the purpose of allowing the user to interactively define the mapping, as taught by Fong.

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*Claim 35:*

This claim merely recites software that performs the method recited in Claim 18. Taylor, in view of Fong, discloses/teaches a computer system and computer software that performs the method of Claim 18. Thus, Taylor, in view of Fong, discloses/teaches every limitation of Claim 35, as indicated in the above rejection for Claim 18.

***Response to Arguments***

Applicant's arguments, filed 20 October 2004, with respect to Claims 1, 3-16, 18 and 33-35 have been fully considered and are persuasive. The rejections previously set forth under 35 U.S.C. 102 are withdrawn.

Applicant's arguments filed 20 October 2004, with respect to Claims 17 and 19-25, have been fully considered but they are not persuasive.

*Arguments for Claim 17:*

Applicant conclusively states that Boyce neither discloses nor suggests "automatically" reconciling component variables with container variables in a document and provides no details or explanation regarding why he believes this is true. See *Applicant's Response* dated 20 October 2004 – Page 27, third paragraph.

The examiner disagrees.



Firstly, Applicant's argument fails to comply with 37 CFR 1.111(b) because it amounts to a general allegation that the claim defines a patentable invention without specifically pointing out how the language of the claim patentably distinguishes it from the reference. Simply stating that certain limitations of a claim are not disclosed in the cited reference, with no analysis of how the specific language of each limitation is distinguishable from the subject matter disclosed in the cited reference, fails to meet the requirement of 37 CFR 1.111(b) that Applicant "specifically [point] out how the language of the claims patentably distinguishes them from the references."

Secondly, Boyce does disclose this limitation. As indicated in the above rejection for Claim 17, Boyce discloses this limitation in that data from an Access database table can be merged into a Word document. The reconciliation is "automatic" in that the data from the Access database table are merged into the corresponding merge fields of the word document once the merge process begins. That is, the user is not required to interactively merge the data from the Access database table into the corresponding merge fields of the word document.

*Arguments for Claim 19:*

Applicant argues that Boyce neither discloses nor suggests "a reconciler that maps container variables in said container, with component variables in said component" because Boyce fails to disclose or suggest that each "merge field" is "mapped" to corresponding fields of each record in the Access database, as stated by

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the examiner. Applicant states that the Examiner provided cited no support in Boyce for this feature. See *Applicant's Response* dated 20 October 2004 – Page 27, fourth and fifth paragraphs.

The examiner disagrees.

Firstly, the examiner did cite Pages 188-196 and 1020-1023 in Boyce as support for disclosure of this feature.

Secondly, the Mail Merge feature in Word “maps” each “merge field” in the Word document to the corresponding fields of each record in the Access database by inserting the data from the Access record fields into the corresponding “merge fields” of the Word document. The term “map” means “to make logical connections between two entities.” The Mail Merge feature “makes logical connections” between the Access database and the Word document by inserting from the Access record fields into the corresponding “merge fields” of the Word document. Thus, Mail Merge “maps” each “merge field” in the Word document to the corresponding fields of each record in the Access database.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Monson-Haefel, Richard, **Enterprise JavaBeans, 3<sup>rd</sup> Edition**, Chapter 9 – “*EJB 1.1 CMP*” (O'Reilly & Associates, Inc. ©2001); Alur, Deepak et al., **Core J2EE Patterns: Best Practices and Design Strategies, Second Edition**,

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Chapter 7 – “*Business Tier Patterns*” (Prentice Hall PTR ©2003); and Shannon, Bill et al., **Java 2 Platform, Enterprise Edition: Platform and Component Specifications**, Chapter EJB.9 – “*Entity Bean Component Contract*” (Addison Wesley ©2000).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (571) 272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH  
March 29, 2005

A handwritten signature in black ink, appearing to read 'D. Hutton', with a stylized flourish at the end.

**DOUG HUTTON  
PATENT EXAMINER  
TECH CENTER 2100**